

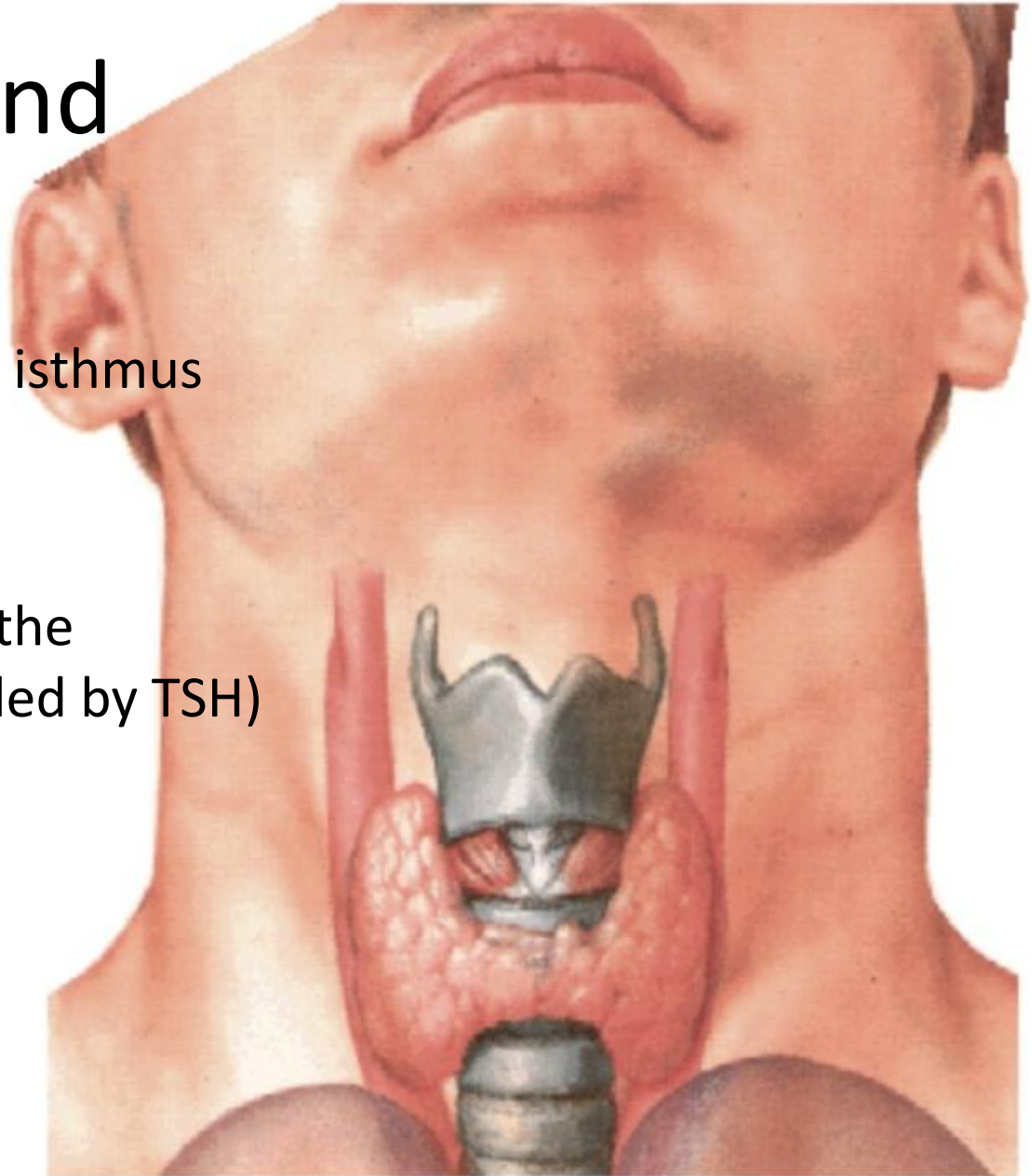
Endocrine Glands

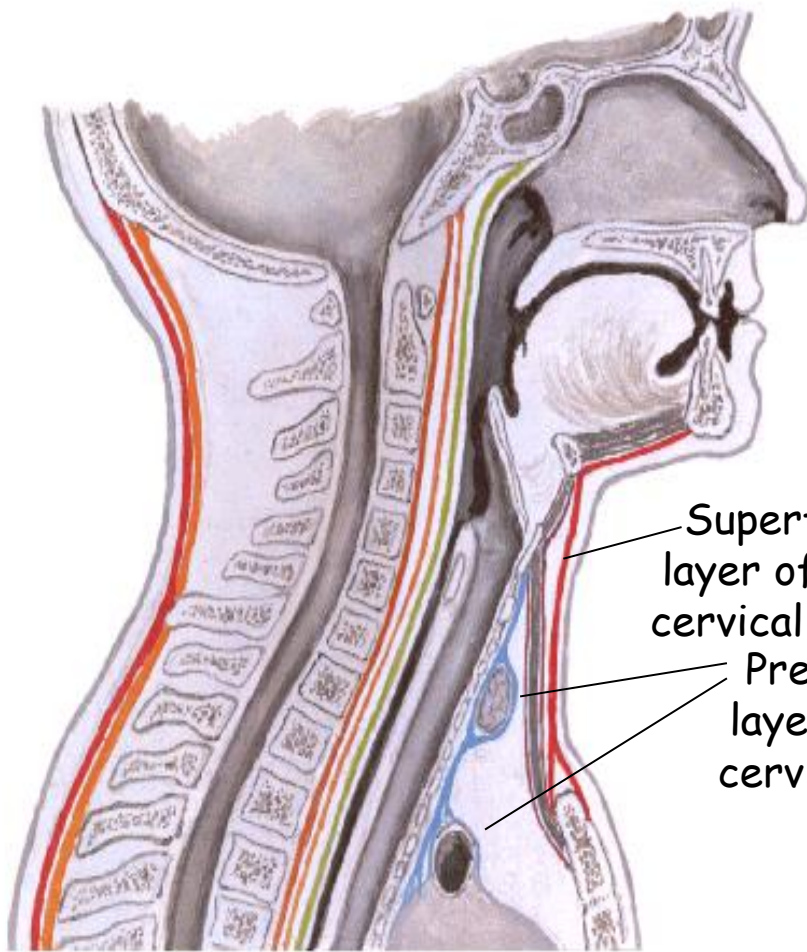
Thyroid, Parathyroid, Adrenal glands, and Thymus

ProfDrMTY

Thyroid Gland

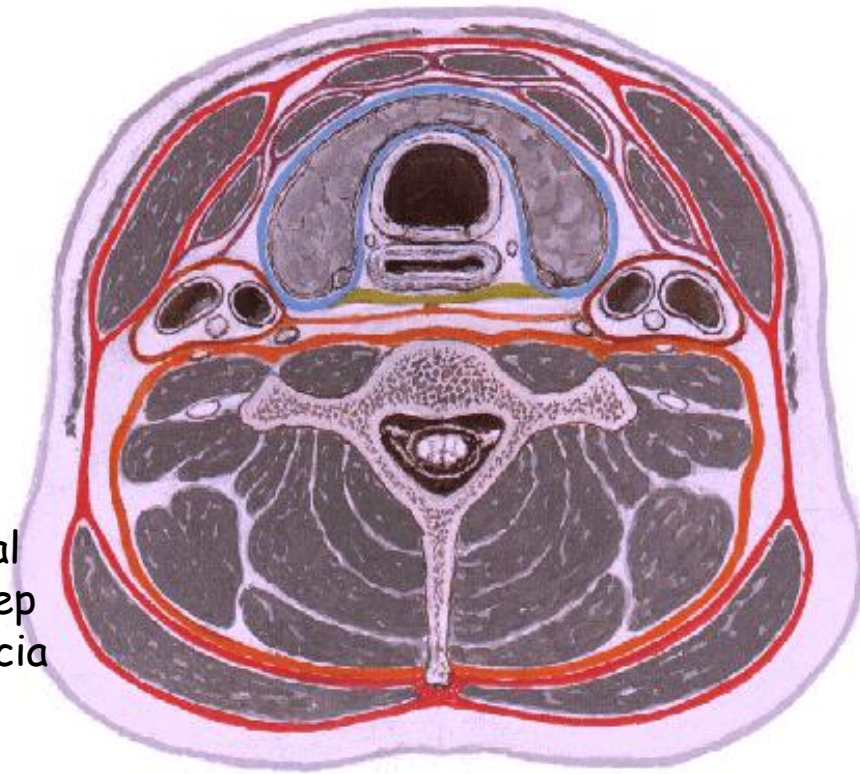
- C5-T1
- 2 lobes connected w isthmus
- 3cm lx2cm dx5cm h
- 25 g
- T3-T4 for regulating the metabolism (controlled by TSH)



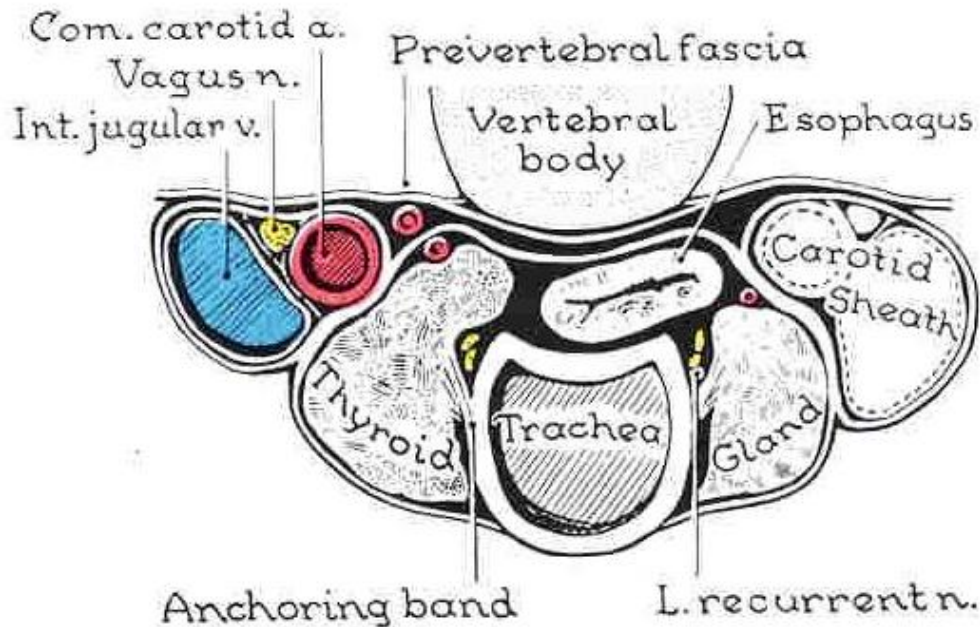
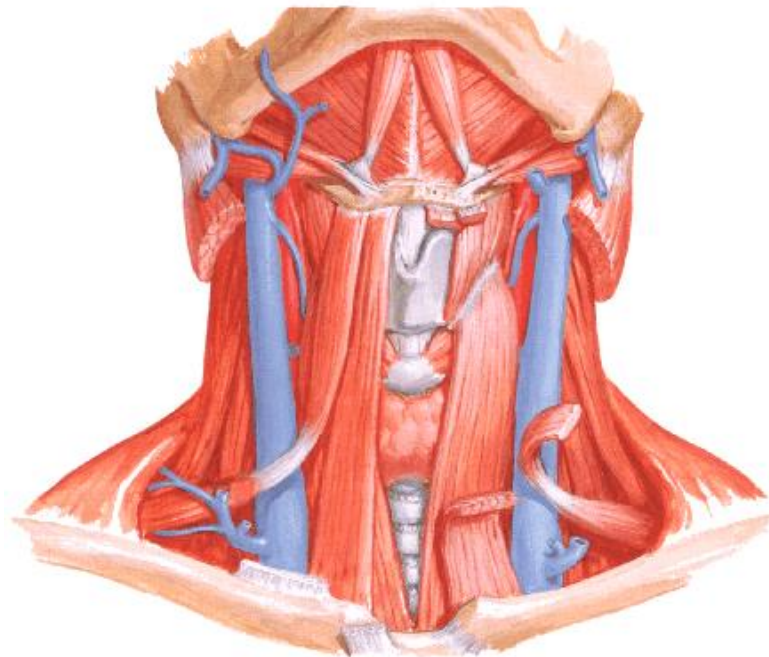


Superficial
layer of deep
cervical fascia

Pretracheal
layer of deep
cervical fascia



Fibrous capsule

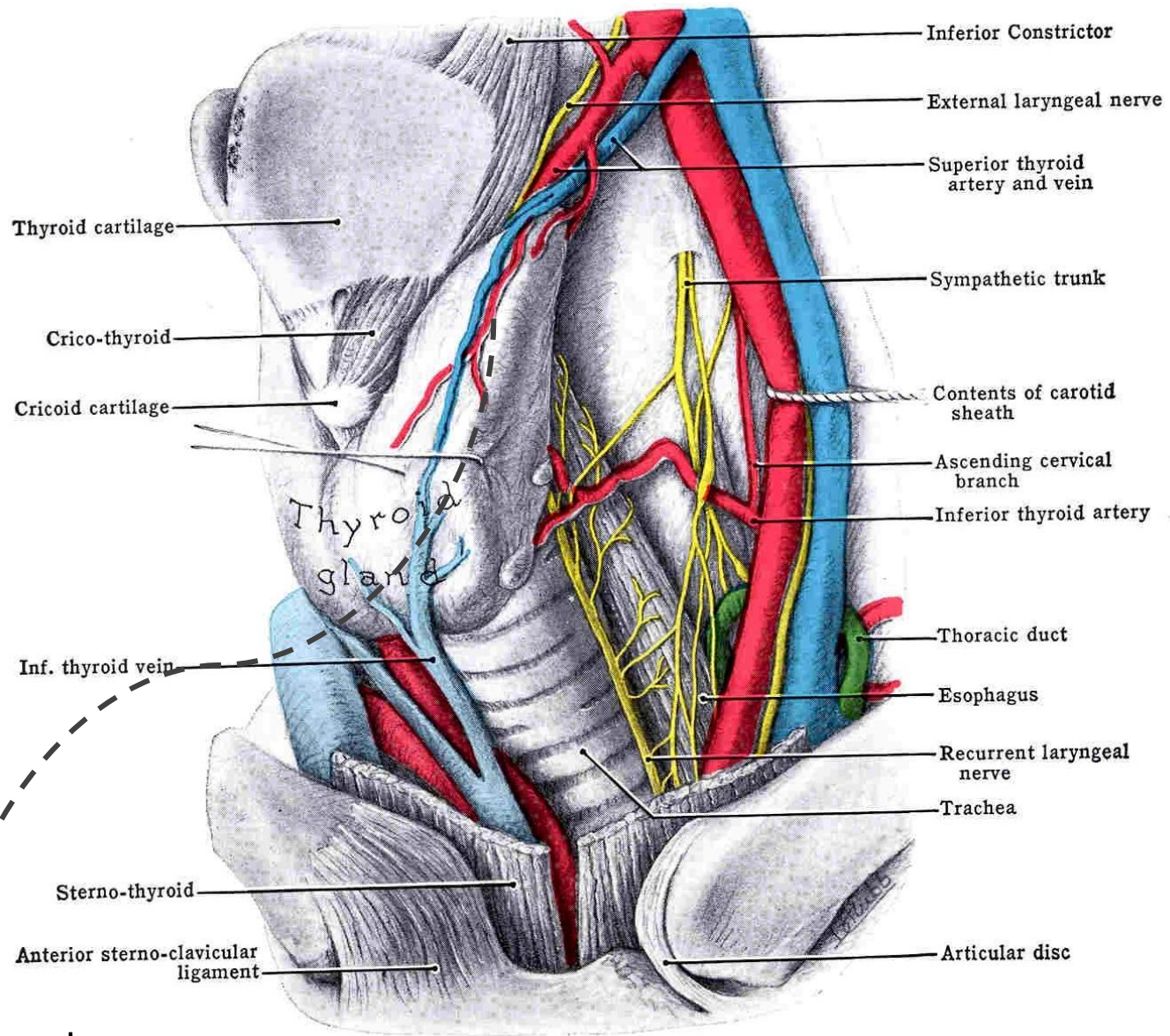


Medial Relations (R&L lobes)

- Larynx
- Trachea
- Esophagus
- Recurrent laryngeal n

Posterolateral Relations

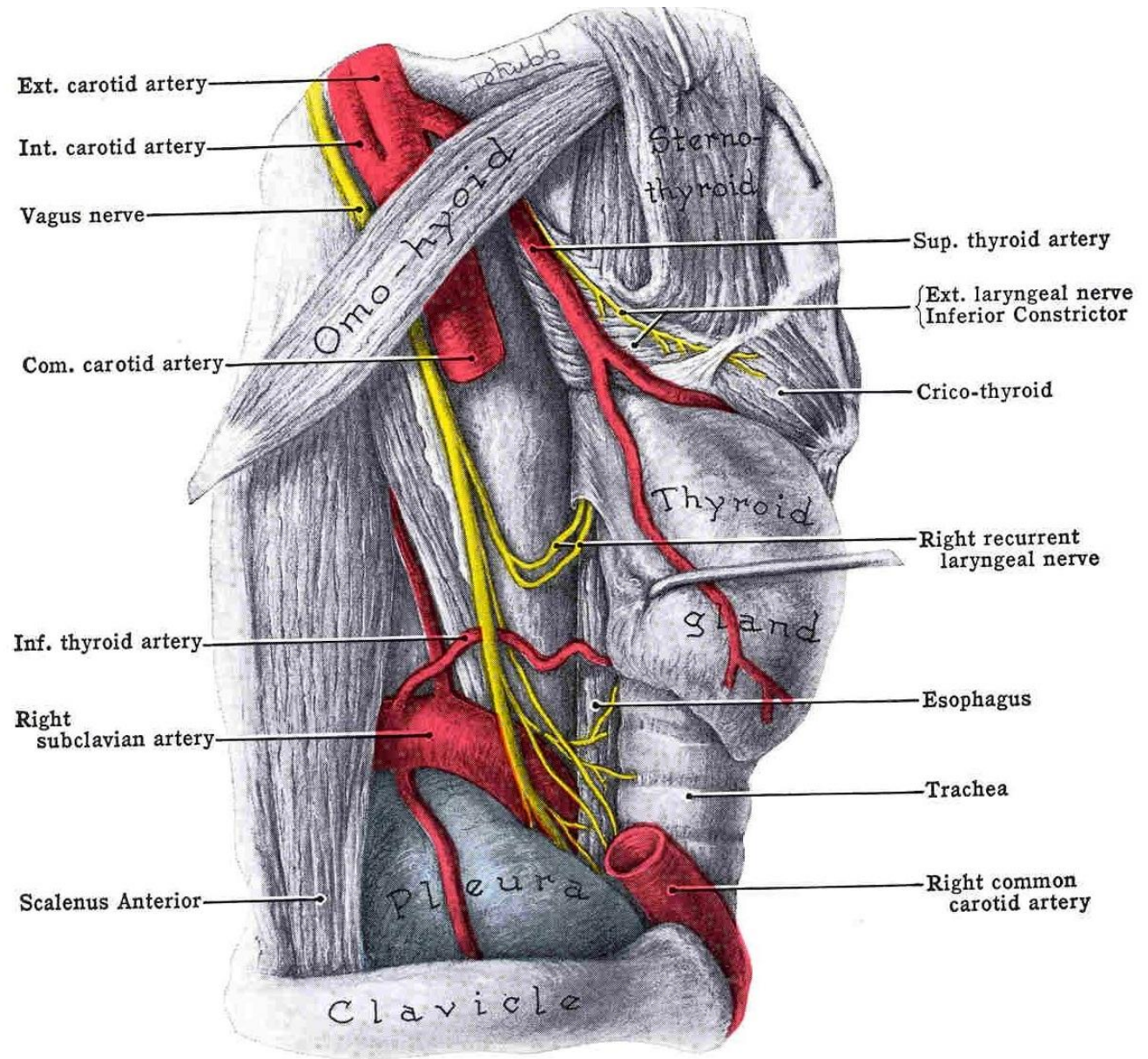
- Carotid sheath

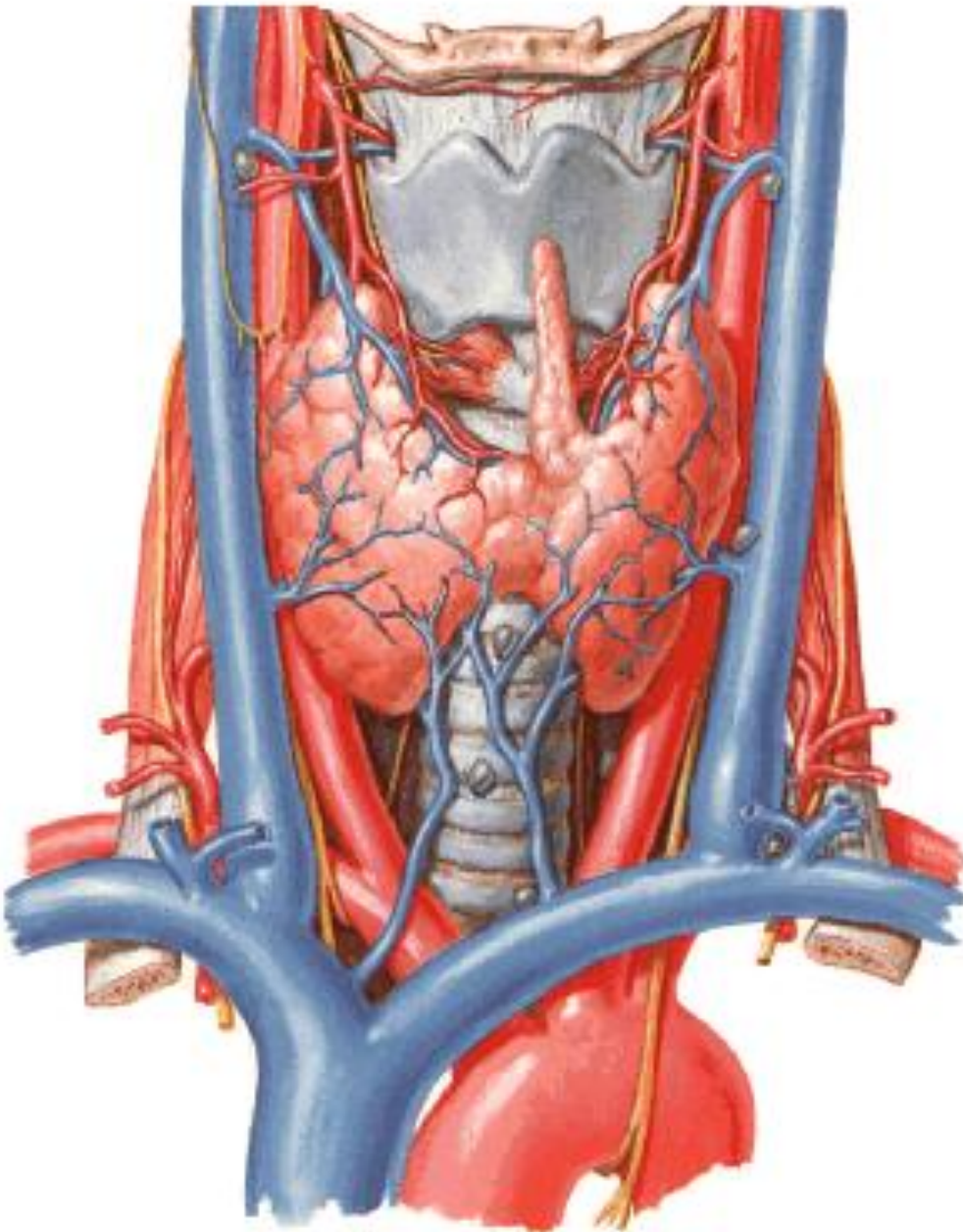


❖ Ant border

❖ Posterior

■ Parathyroid gl





Vessels and Nerves

A Sup thyroid a (external carotid a)
Inf thyroid a (thyrocervical trunk)

V Sup and med thyroid vv (internal jugular vv)

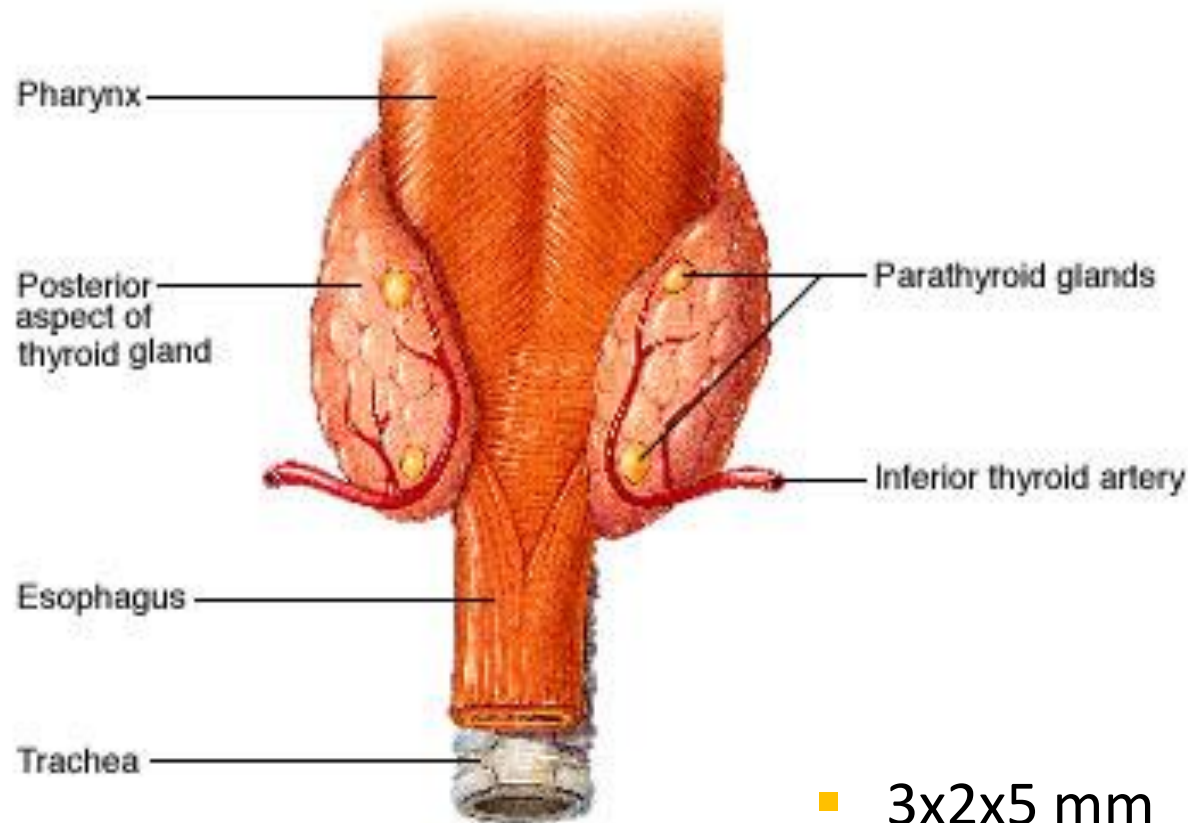
Inf thyroid v (brachiocephalic vv)

N Superior, middle, and inferior cervical sympathetic ganglia & vagus n

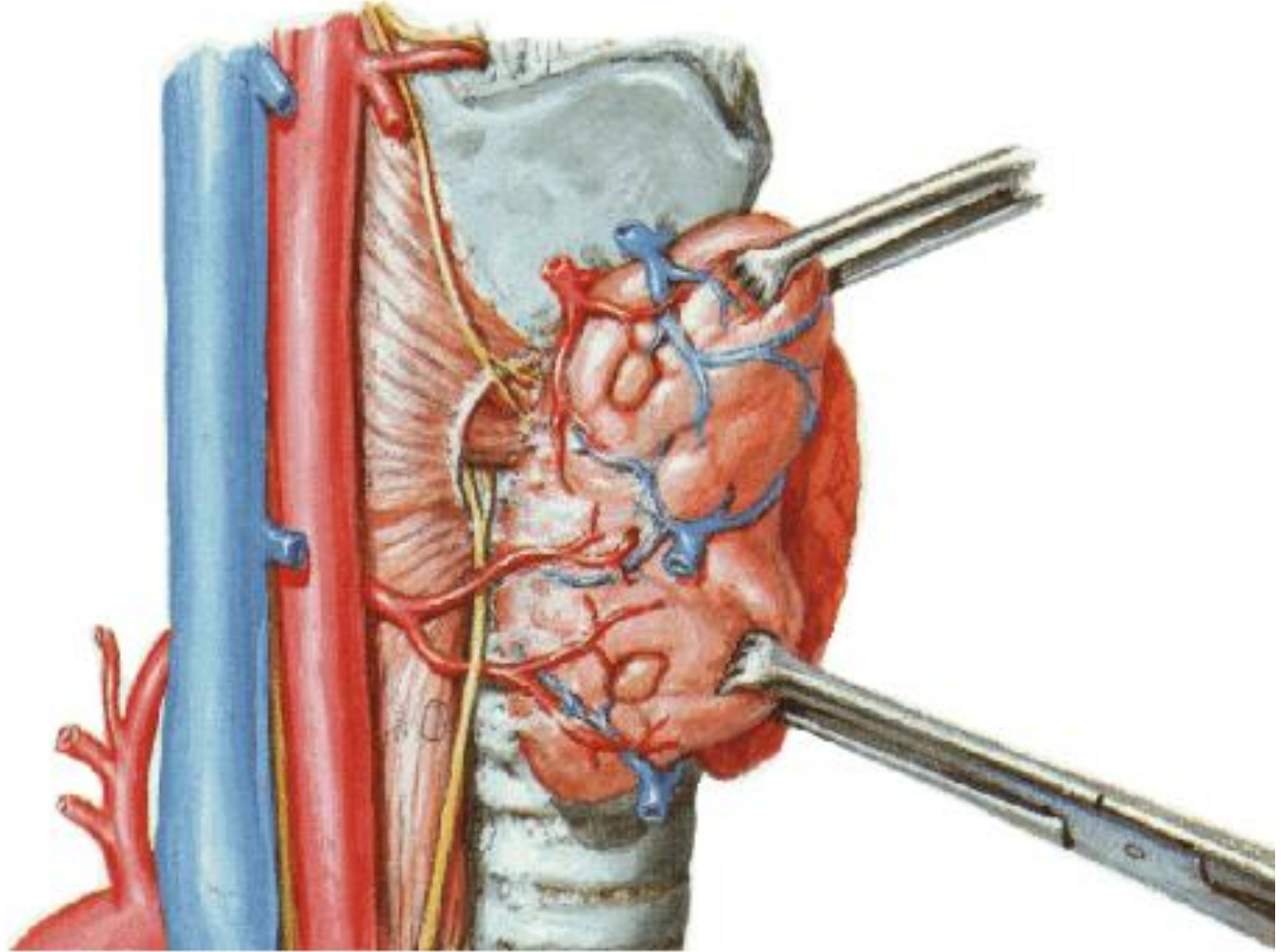
L Periglandular nodes>
prelaryngeal>pretracheal, and paratracheal nodes > mediastinal lymph nodes.

Parathyroid gland

Secrets parathyroid hormone to regulate calcium level; calcium is the primary element that causes muscles to contract. Calcium levels are very important to the normal conduction of electrical currents along nerves, also.



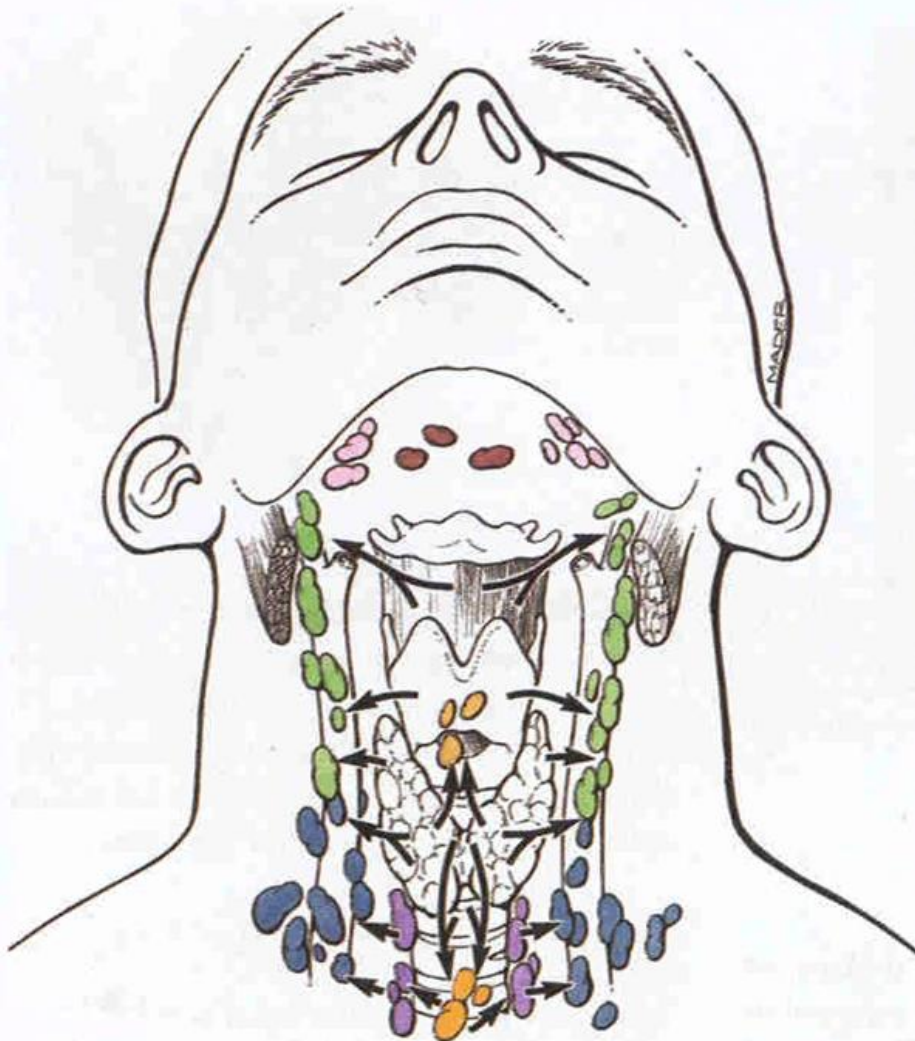
- 3x2x5 mm
- 50 mg
- 4 in number



Nerves of thyroid & parathyroid glands

Cervical ganglia
(not from the inf ganglia for
parathyroid)

Vagus



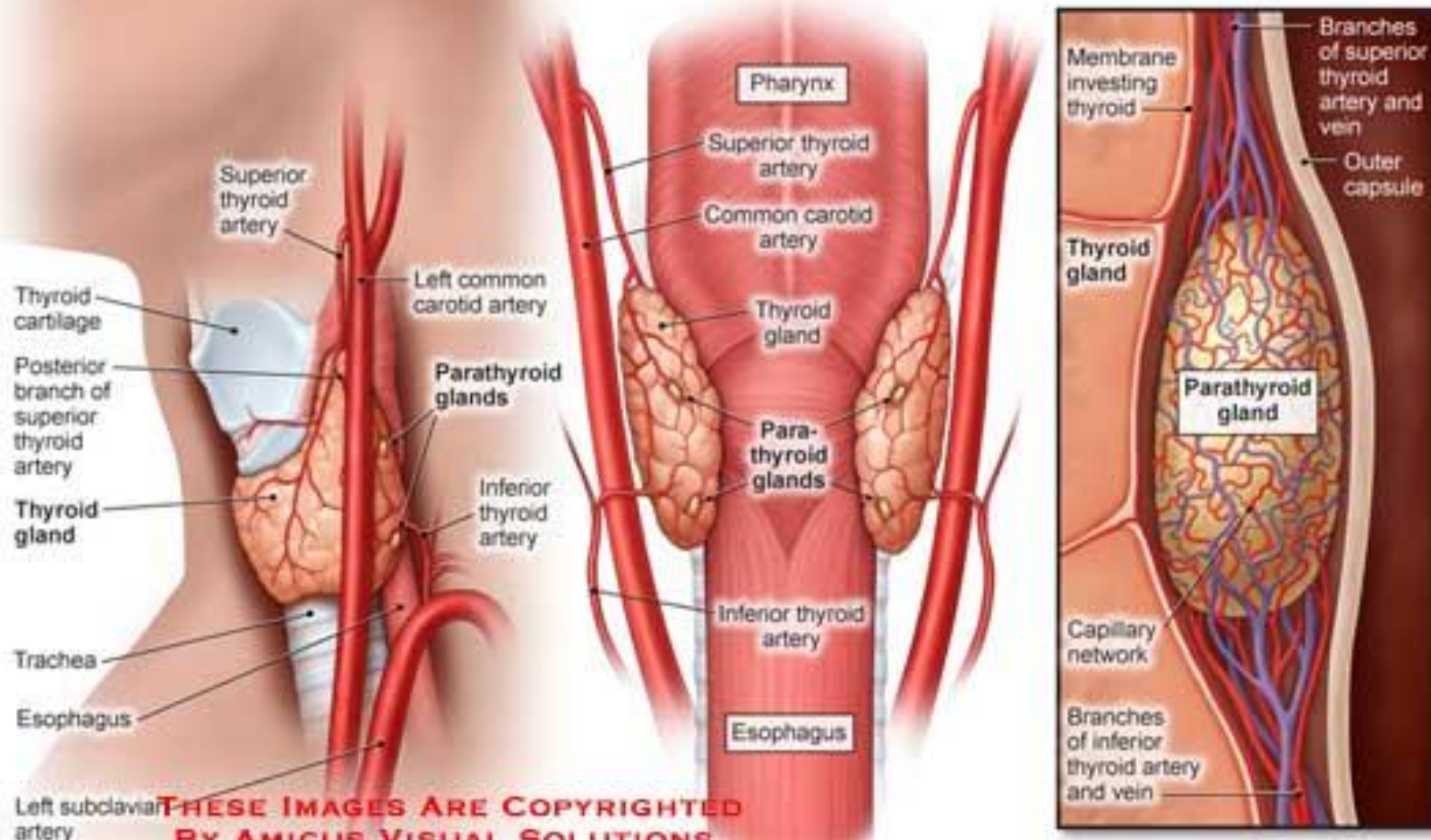
-  Superior deep cervical
-  Inferior deep cervical
-  Submental
-  Submandibular
-  Prelaryngeal
-  Paratracheal
-  Pretracheal

The Parathyroid Glands

Sagittal View

Posterior View

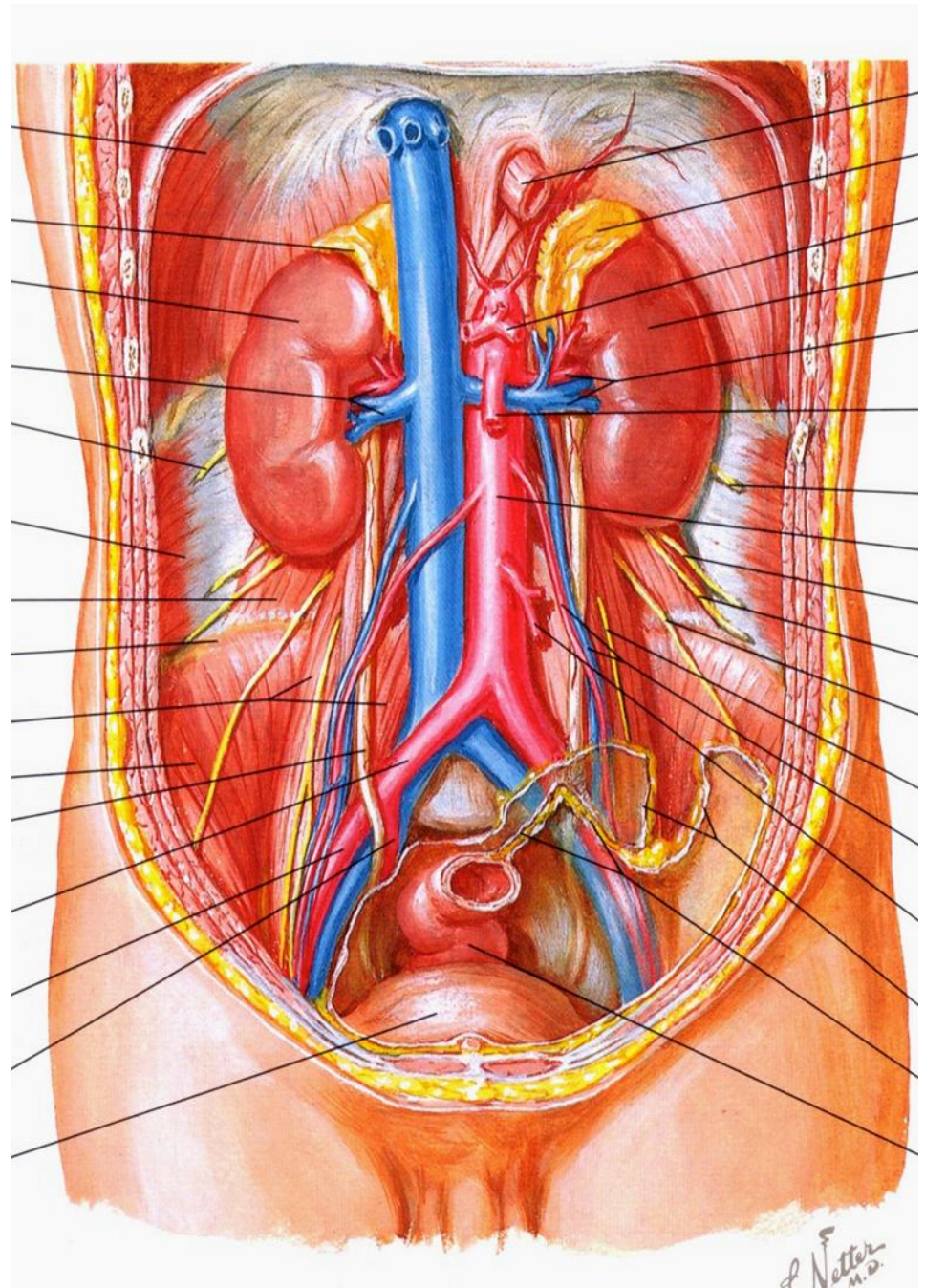
Parathyroid Within
Capillary Network



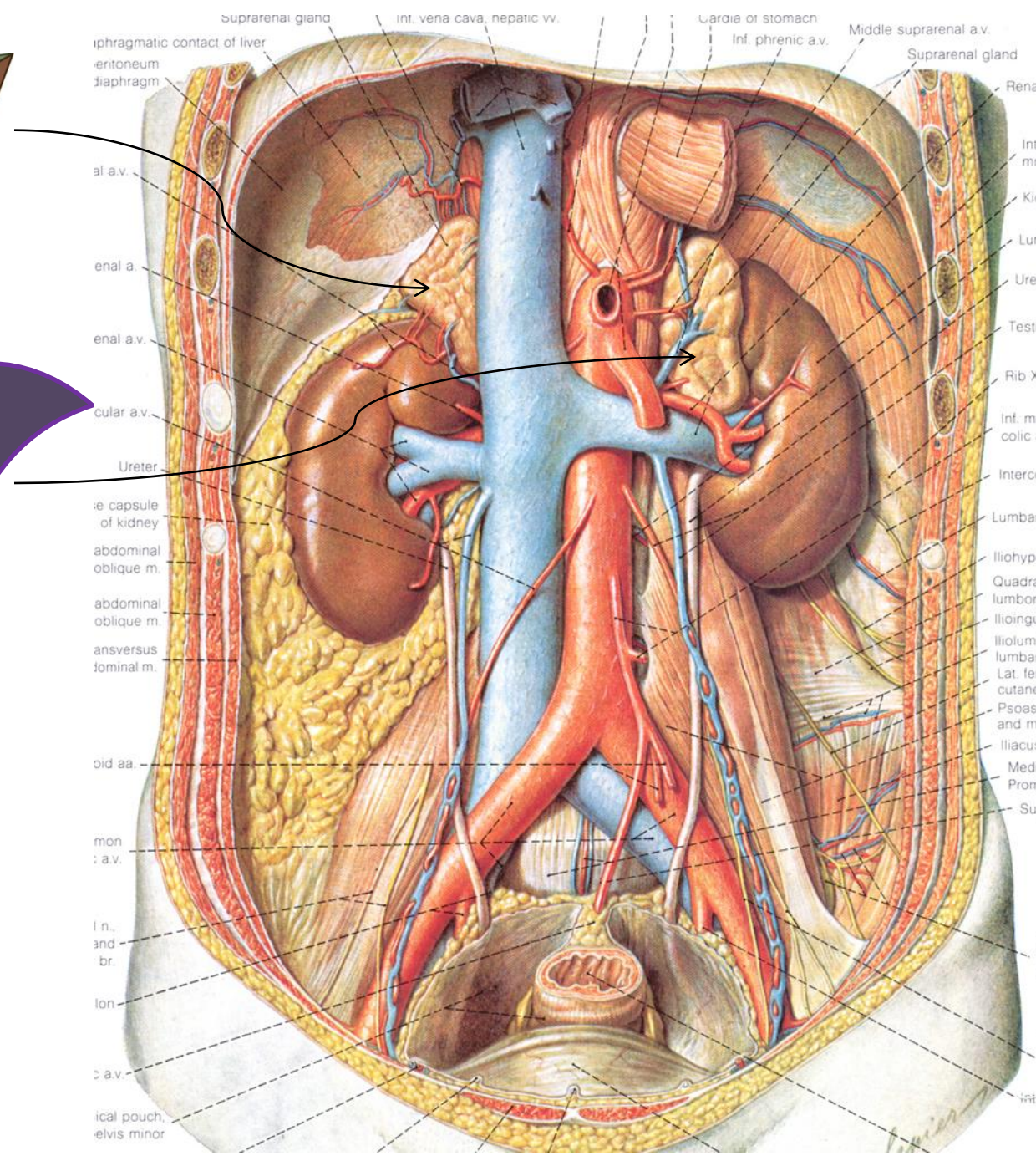
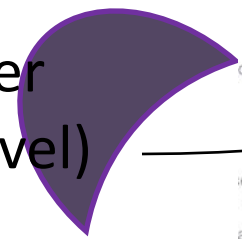
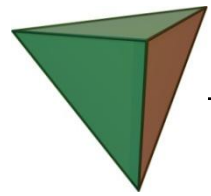
THESE IMAGES ARE COPYRIGHTED
BY AMICUS VISUAL SOLUTIONS.
COPYRIGHT LAW ALLOWS A \$150,000
PENALTY FOR UNAUTHORIZED USE.
CALL 1-877-303-1952 FOR LICENSE.

Suprarenal glands

- Small yellowish bodies
- Flat anteroposteriorly
- Situated anterosup to superior renal pole
- Surrounded by connective tissue
- Enclosed in renal fascia
- Separated from kidneys by fibrous tissue

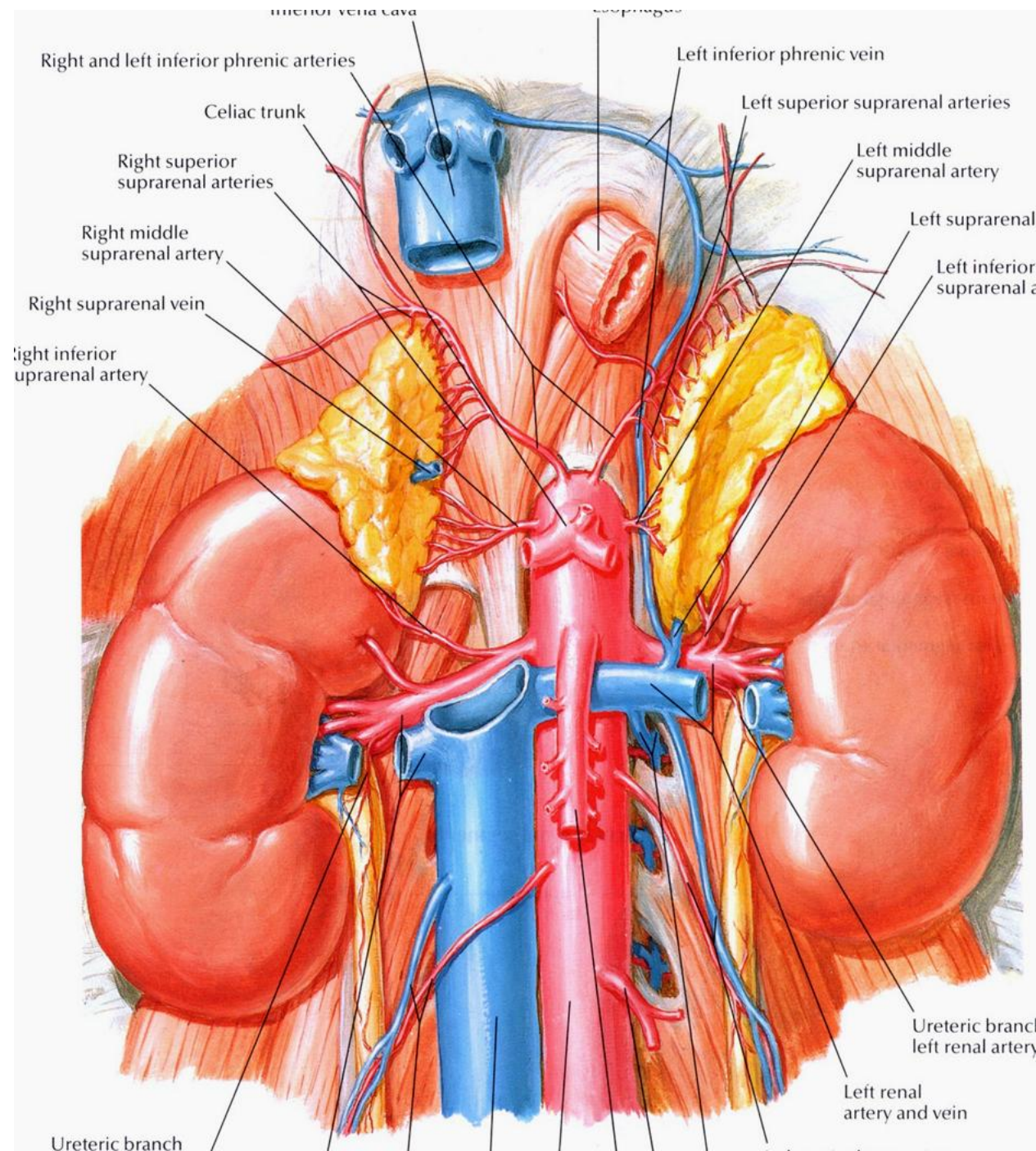


- **R:** Irregular tetrahedron
- **L:** semilunar (larger and superior in level)
- In adults
 - 5cmx3cmx1cm
 - 5 gr



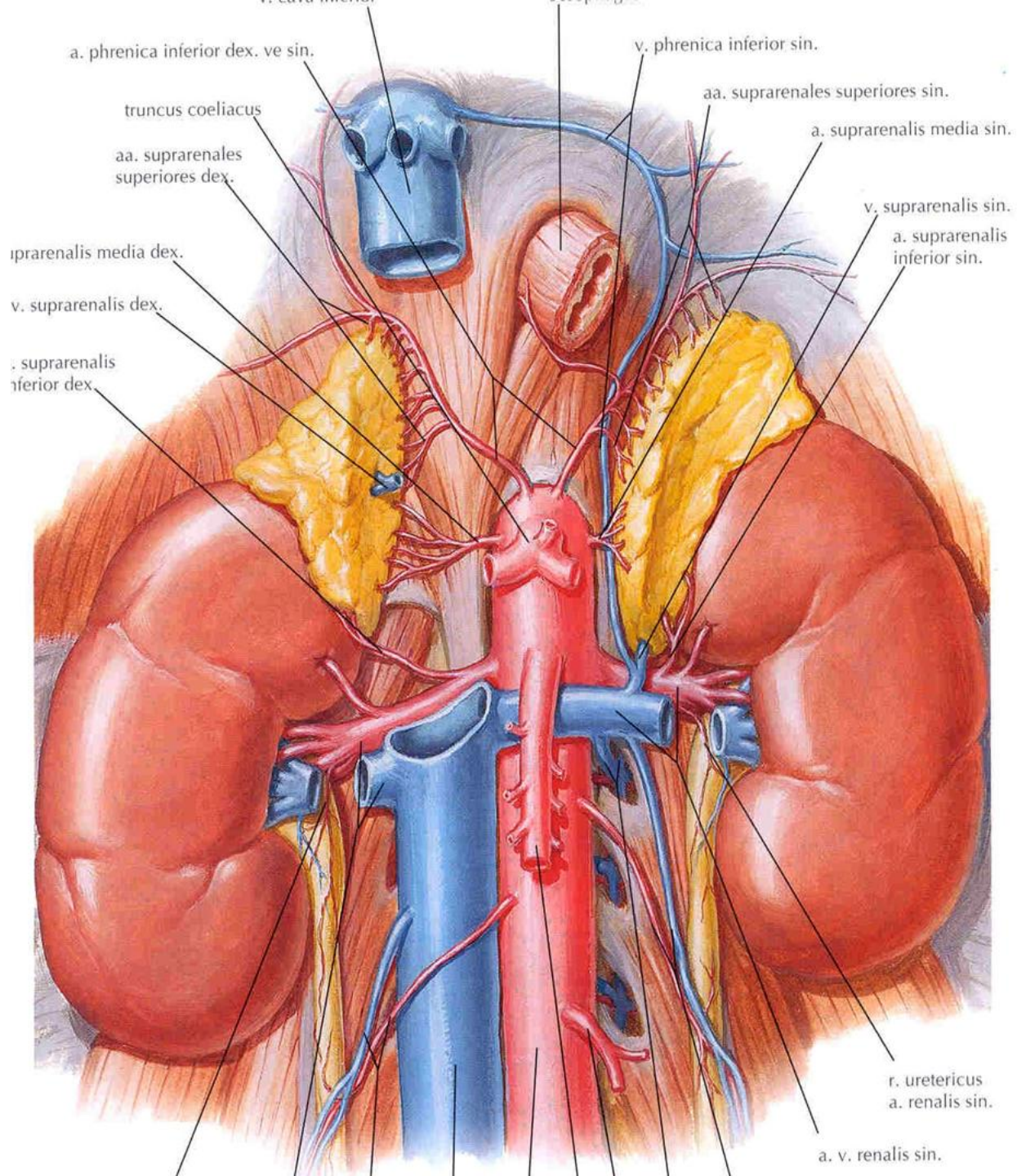
Hilum (R)

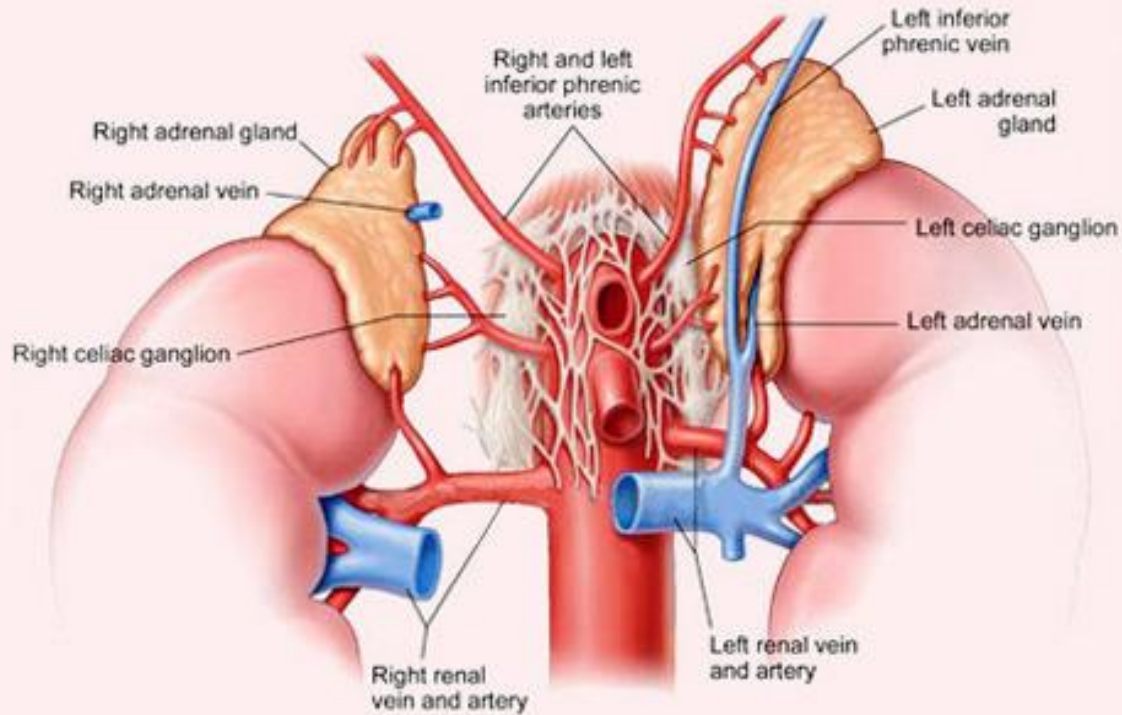
- On the anterior surface
- Right suprarenal v. emerges and sup., middle, and inf. suprarenal aa. enter



Hilum (L)

- Faces ventrocaudally
- Left sup., middle, inf. suprarenal aa. enter and left suprarenal v. emerges at the lower end

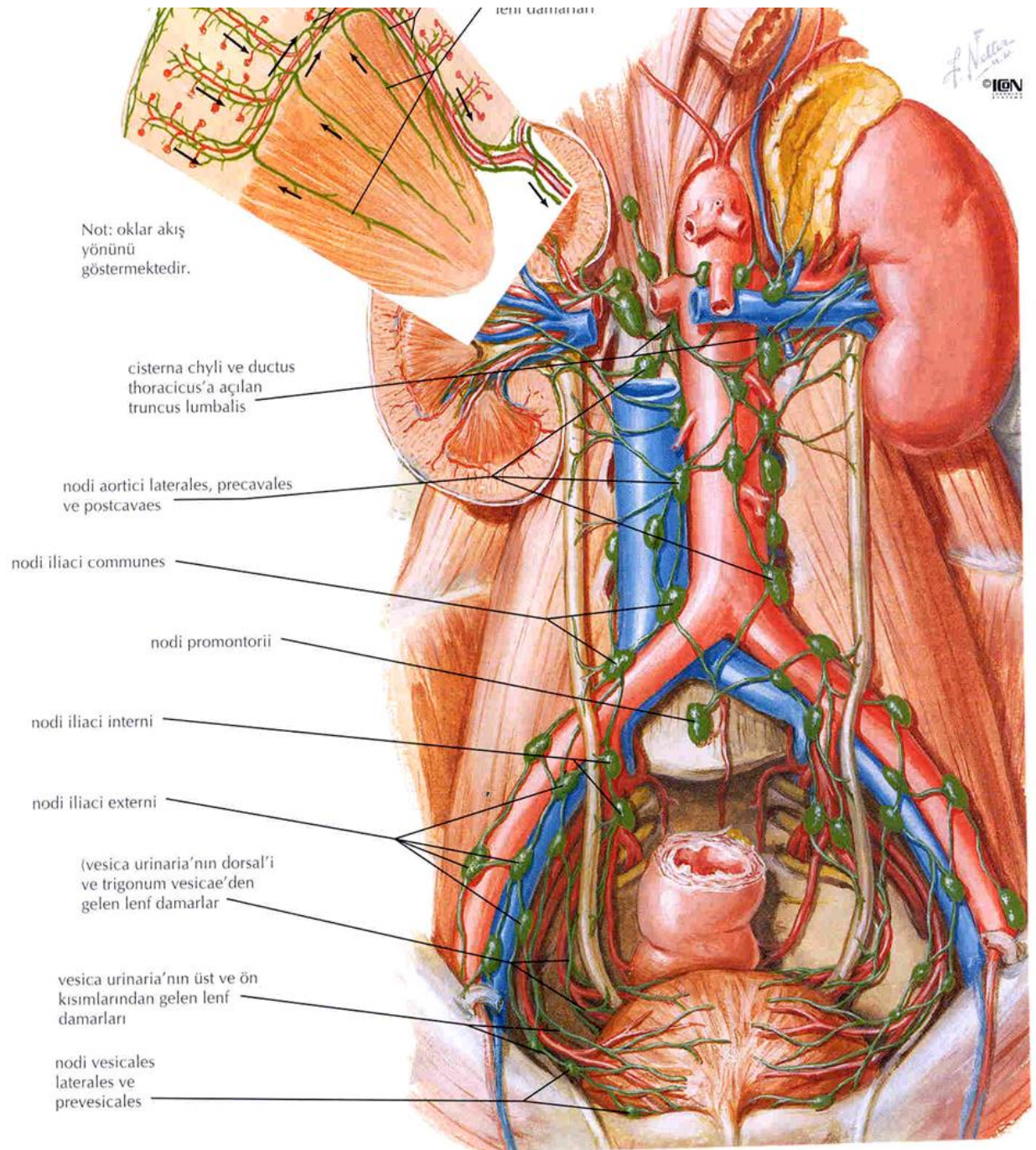




- Superior suprarenal a. (inf. phrenic a.)
- Middle suprarenal a. (abdominal aorta)
- Inferior suprarenal a. (renal a.)
- Right suprarenal v. > inf. v. cava
- Left suprarenal v. > renal v.

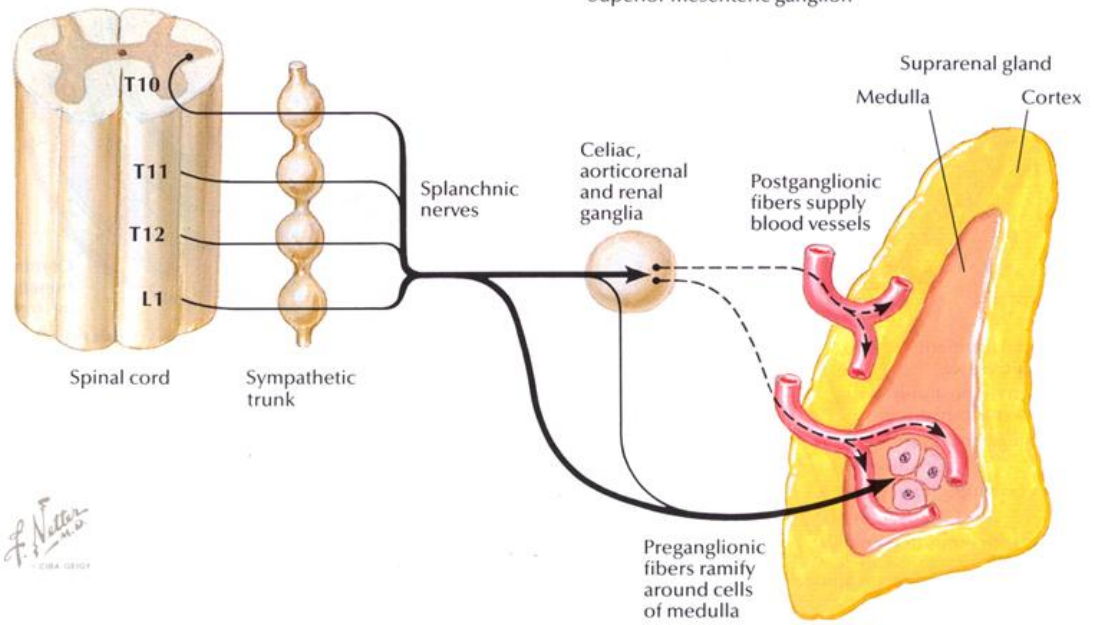
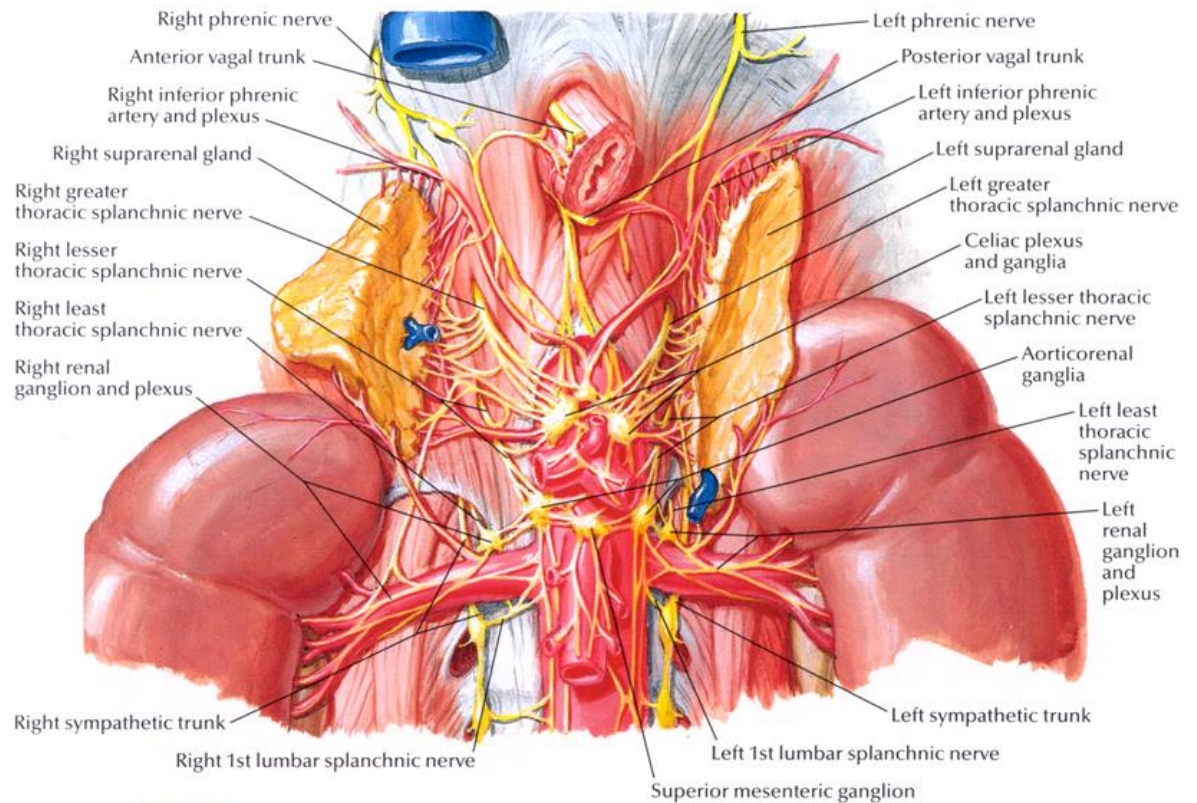
Lymph vessels

- Lateral aortic lymph nodes



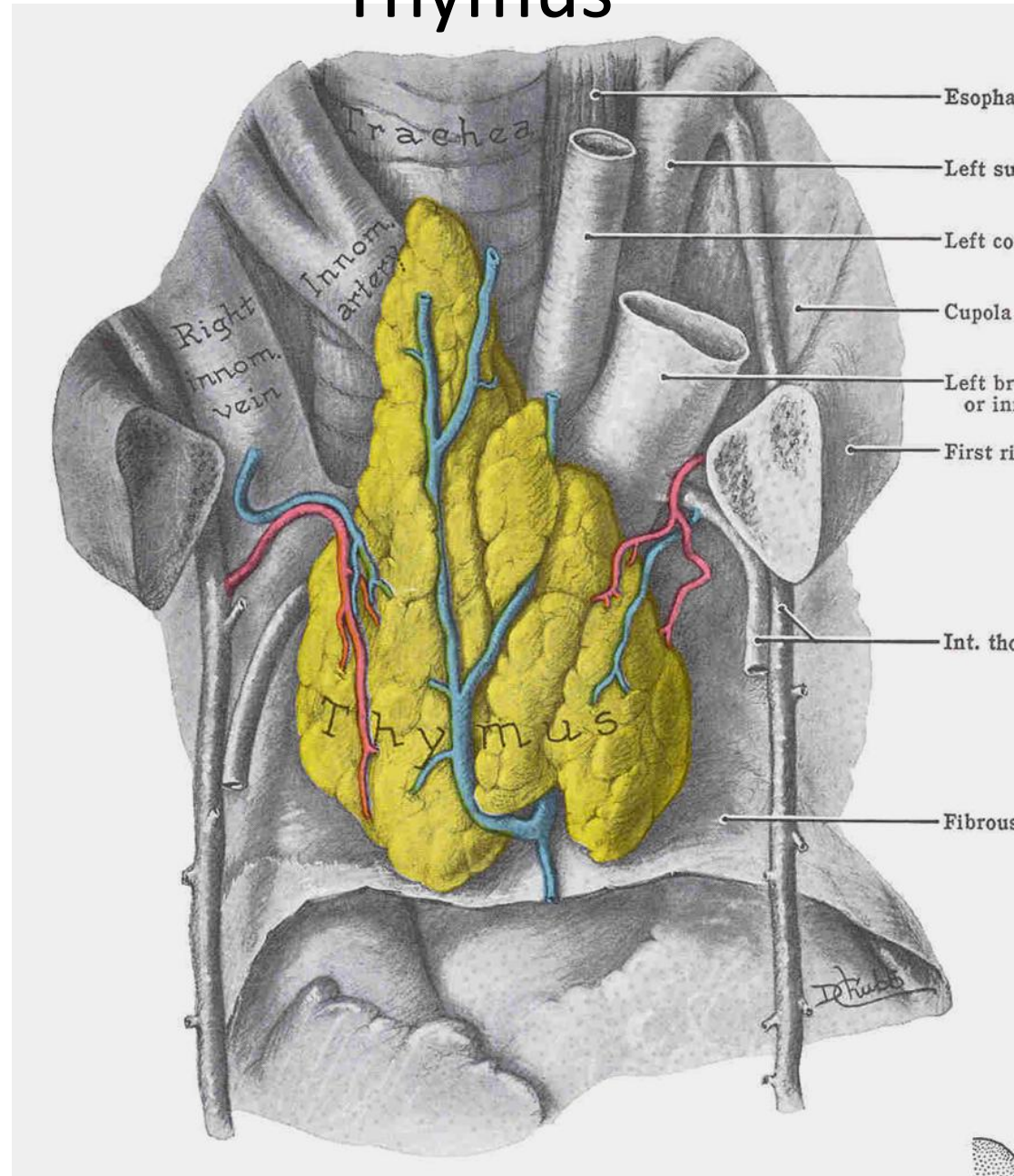
Nerves

- Myelinated pregang. symph. fibres
- Distributed to medullary chromaffin cells
- Cortex; under control of adenohypophysis



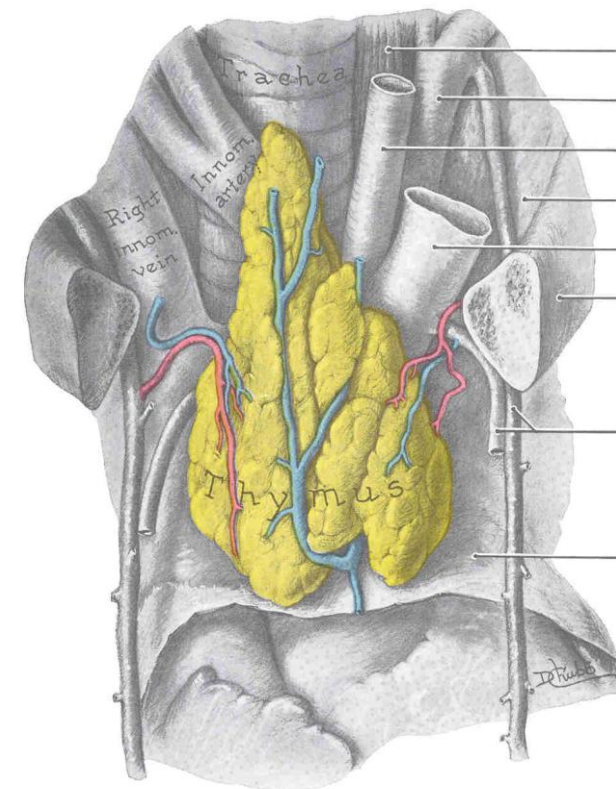
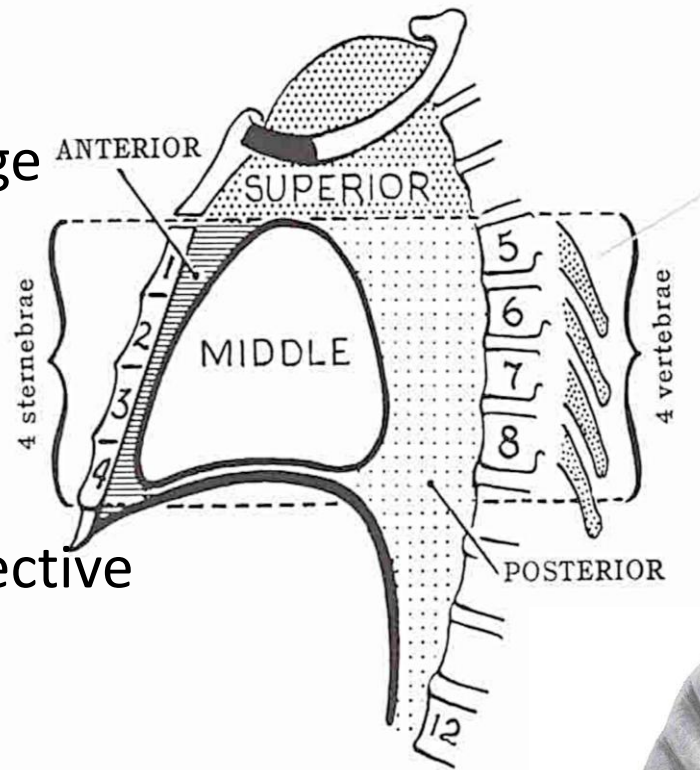
Thymus

- One of two primary lymphoid organs (other than bone marrow)
- Responsible for provision of T lymphocytes to whole body



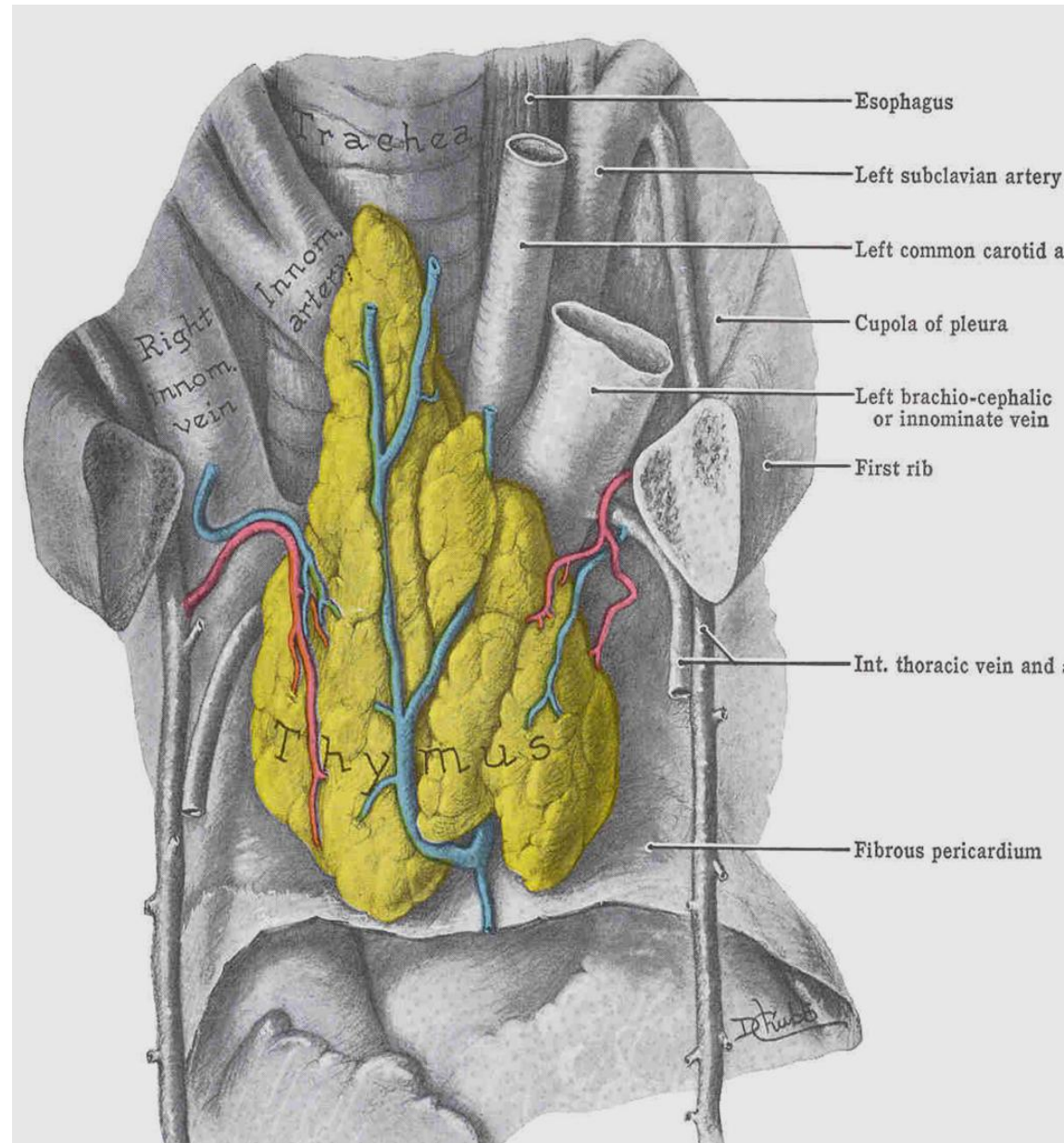
Thymus

- Appearance varies with age (Largest up to age 15)
- Soft bilobed organ
- Two parts joined by connective tissue, which merges with capsule of each lobe
- deep red in early life; thinner, greyer by age and yellow in the late life (adipose tissue infiltrates organ)
- 10-15 g at birth and rapidly increases 20 g



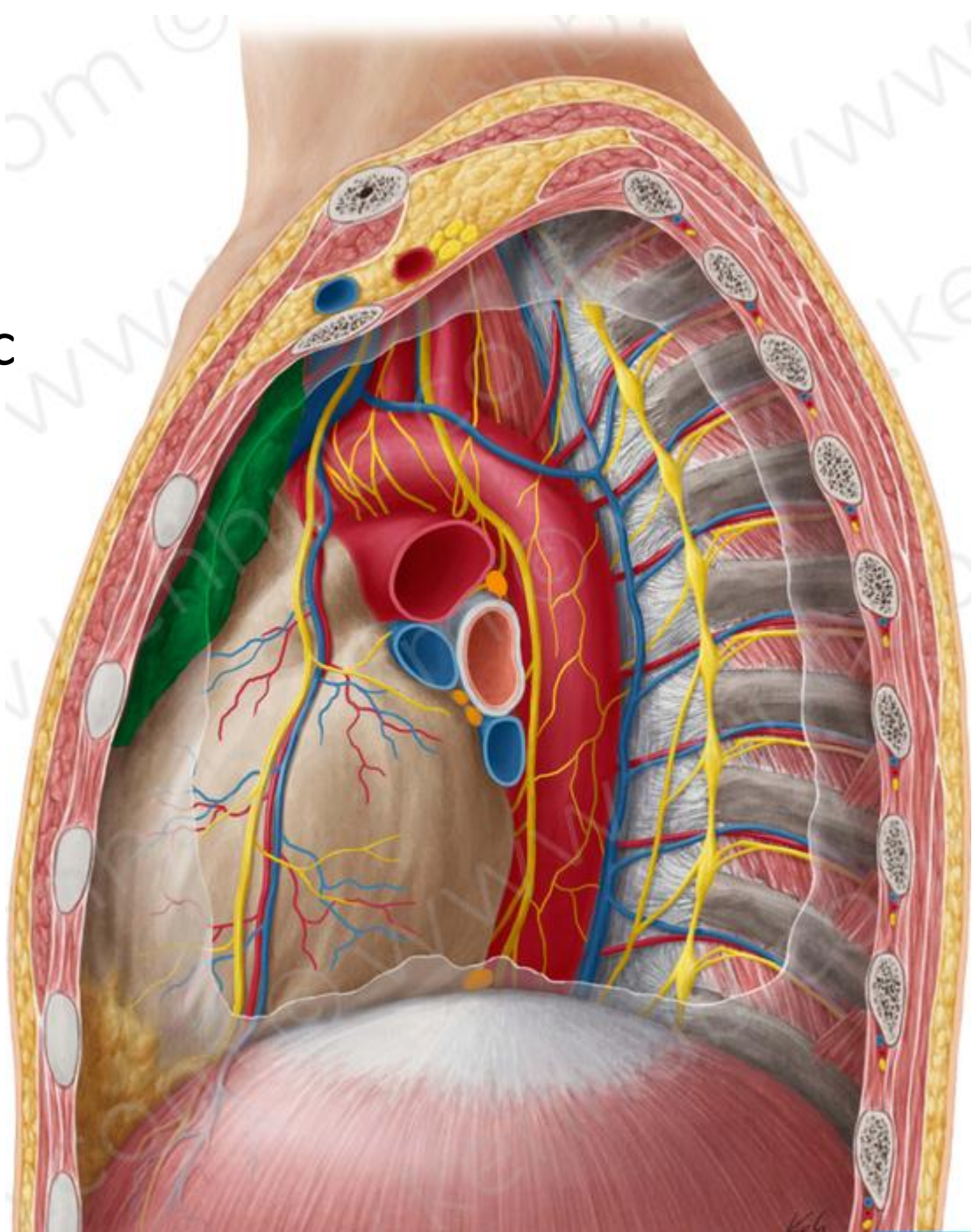
Vessels

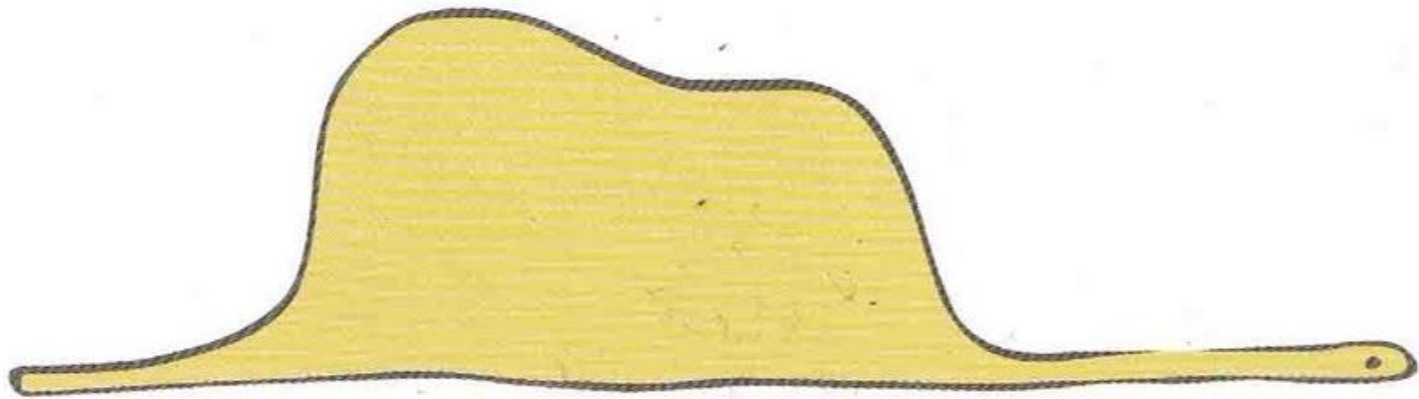
- Aa: Internal thoracic a., inf. thyroid a.
- Vv: Left brachiocephalic, internal thoracic, inf. thyroid vv.



Nerves

- Symp: Cervicothoracic (stellate) ganglion
- Parasymp: Vagus n.





Thank you and have a great day..